

REMARKS

The Examiner maintains his rejection of claims 3, 4, 20-23 and 27 under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 6,488,332 B1, to Markwald, in view of U.S. Patent No. 6,086,086, to Hanson et al.

Claims 20 and 22 are directed to a seating system comprising a sliding mechanism configured to mount a seat tray for forward and rearward sliding movement in a *single plane* with respect to a base in a low friction manner. Moreover, the claims recite a pivot point for a seat back positioned at the *anatomical hip* of the user of the seating system and a pivot point for a leg support positioned at the *anatomical knee* of the user.

As stated in Applicants' response filed on January 17, 2008, Markwald fails to teach or suggest a sliding mechanism as recited in claims 20 and 22. Markwald discloses a guide (17), which may qualify as a sliding mechanism, and a seat surface (7) but Markwald does not teach or suggest that the guide is configured to mount the seat surface for forward and rearward sliding movement in a *single plane*, as recited in the claims. Markwald also fails to disclose pivot points as recited in the claims. Markwald appears to disclose seat back and knee pivot points (9) and (11) but Markwald does not teach or suggest that the pivot points are positioned at the *anatomical hip and knee pivot points* of the user, as recited in the claims.

Hansen fails to cure the deficiencies in Markwald. Hansen discloses a seat base (82) but does not teach or suggest that *the seat base is configured for forward and rearward sliding movement*. Moreover, Hansen discloses pivot posts (62) but does not teach or suggest that the pivot points are positioned at the *anatomical hip and knee pivot points* of the user, as recited in the claims.

Responsive to Applicants' foregoing argument in connection with the sliding mechanism, the Examiner states that the recitation of a guide that is configured to mount the seat surface for forward and rearward sliding movement in a *single plane* is a recitation of the intended use of the claimed invention, which must result in a structural difference between the claimed invention and the prior art in order to

patentably distinguish the claimed invention from the prior art. The Examiner argues that if the prior art structure is capable of performing the intended use, it meets the limitations of the claim.

First, the recitation of a sliding mechanism that is configured to mount the seat surface for forward and rearward sliding movement in a *single plane*, as recited in claims 20 and 22, is not a recitation of intended use. Instead, it's a functional limitation that defines the slide mechanism in relation to other elements of the claims. There is nothing inherently wrong with defining some part of an invention in functional terms. Functional language does not, in and of itself, render a claim improper. *In re Swinehart*, 439 F.2d 210, 169 USPQ 226 (CCPA 1971).

Next, even if the functional limitation could be construed as a recitation of intended use, the claims are patentably distinguished because there are structural differences between the claimed invention and the prior art. The claimed invention comprises a seat tray that is mounted for movement in a *single plane*. Neither Markwald nor Hanson discloses a seat tray that is mounted for movement in a *single plane*. Due to this structural difference, the claims are patentably distinguished from the prior art.

Lastly, the prior art structure is not capable of performing the intended use. Neither Markwald nor Hanson disclose or teach the claimed sliding mechanism. As mentioned above, the seat base (82) disclosed by Hansen is not *configured for sliding movement*. Though the seat surface (7) of Markwald is mounted for movement, it is not mounted for movement in a *single plane*, as recited in the claims. The Examiner argues that it is mounted for movement in a *single plane* when the seat tray is only moved slightly. However, this is not true. Contrary to the Examiner's argument, if Markwald's seat tray is moved slightly, then the seat tray moves angularly a corresponding amount. Hence, the seat surface (7) of Markwald is not mounted for forward and rearward sliding movement in a *single plane*. Consequently, it is not cable of performing the intended use. It follows that it does not meet the limitations of the claims.

Regarding pivot points positioned at the *anatomical hip and knee pivot points* of the user, the Examiner states that Hanson specifically teaches the desirability of placing pivot points at the anatomical correct hip and knee locations, referring to columns 8, lines 30-42 of the Hanson patent. However, Hanson does not teach or suggest pivot points positioned at the *anatomical hip and knee pivot points* of the user. Instead, Hanson specifically teaches pivot points positioned at "correct" hip and knee locations. In this regard, Hanson does not teach or suggest the claimed invention. As a consequence, the claimed invention is different from Markwald and Hanson.

The Examiner argues that the functional language in the claims is exceedingly broad as the location corresponding to a user's hip and knee varies depending on the size of the user. The Examiner states that if Applicants argue that such functional language results in a structural difference from the seating system of Markwald and Hanson, a rejection under 35 U.S.C. § 112, second paragraph, may be appropriate for the claimed being indefinite.

First, the functional language is only as broad as is permitted by the references relied upon by the Examiner in making his rejection of the claims. Applicants are entitled to such broad language.

Second, the primary purpose of the requirement of definiteness of claim language is to ensure that the scope of the claims is clear so the public is informed of the boundaries of what constitutes infringement of the patent. Applicants may use functional language, alternative expressions, negative limitations, or any style of expression or format of claim which makes clear the boundaries of the subject matter for which protection is sought. As noted by the court in *In re Swinehart*, 439 F.2d 210, 160 USPQ 226 (CCPA 1971), a claim may not be rejected solely because of the type of language used to define the subject matter for which patent protection is sought.

In a claim that was directed to a kit of component parts capable of being assembled, the Court held that limitations such as "members adapted to be positioned" and "portions . . . being resiliently dilatable whereby said housing may be slidably

positioned" serve to precisely define present structural attributes of interrelated component parts of the claimed assembly. *In re Venezia*, 530 F.2d 956, 189 USPQ 149 (CCPA 1976). In like manner, sliding mechanism and pivot points are defined in such as way as to precisely define present structural attributes of interrelated component parts of the seating system.

In the absence of some teaching or suggestion of a sliding mechanism and pivot points as set forth in claims 20 and 22, the Examiner has not established a prima facie case of obviousness. The rejection of the claims is improper and should be withdrawn.

Claims 3, 4, 21, 23 and 27 depend from claims 20 and 22 and should be allowable for at least the same reasons as claims 20 and 22, as set forth above.

In addition, the sliding mechanism recited in claims 3 and 23 limits the sliding movement of a seat tray to a *substantially horizontal movement*.

Neither Markwald nor Hansen teach or suggest a seat tray *limited to substantially horizontal movement*. Markwald discloses a seat surface (7), which may qualify as a seat tray, but Markwald does not teach or suggest that the seat surface is *limited to substantially horizontal movement*, as recited in the claims. In fact, Markwald's seat surface has vertical and horizontal components of movement. As a consequence, it is not *limited to substantially horizontal movement*. Hansen is entirely devoid of any disclosure of a *seat base is configured for sliding movement*, horizontal or otherwise.

In response to the foregoing argument, the Examiner points out substantially horizontal movement is broader than horizontal movement. The Examiner reasons that a seat tray that has some movement beyond horizontal movement would meet this limitation. The Examiner indicates that because the seat tray of Markwald, alone or in combination, has movement primarily in the horizontal direction, Markwald in view of Hanson teach all the limitations of claims 3 and 23. However, contrary to the Examiner's interpretation, Markwald's seat tray does not move primarily in the horizontal direction. As clearly shown by a comparison of Figs. 1 and 2, Markwald's

seat tray has more movement in a vertical direction than in a horizontal direction (compare the horizontal movement of the guide with the vertical movement of the seat tray).

In the absence of some teaching or suggestion of a seat surface that is *limited to substantially horizontal movement* as set forth in claims 3 and 23, the Examiner has not established a prima facie case of obviousness. Consequently, the rejection of the claims is improper and should be withdrawn.

Claims 6, 14, 15, 24, and 25 are rejected under 35 U.S.C. 103(a) as being unpatentable over Markwald in view Hanson, as applied to claims 3, 4, 20-23 and 27 above, and further in view of U.S. Patent No. 327,775 to Dodge.

Claims 6, 14, 15, 24, and 25 depend from claims 20 and 22 and should be allowable over Markwald and Hanson for at least the same reasons as claims 20 and 22, as set forth above. Dodge fails to cure the deficiencies in Markwald and Hanson. Consequently, the claims should be allowable over Markwald in view of Hanson and Dodge for at least the same reasons as claims 20 and 22, as set forth above.

In addition, claims 6, 14 and 24 recite a seat back that is connected to a back support member, wherein downward movement of the back support member in a substantially vertical direction with respect to a base causes the seat back to pivot at a seat tray, thereby reclining the seat back, and thereby *causing the seat tray to slide forward with respect to the base*.

Markwald fails to disclose a seat back that moves downward to cause the seat back to pivot at a seat tray and thereby recline, which in turn *causes the seat tray to slide forward with respect to a base*, as admitted by the Examiner. The Examiner interprets a shaft (H) disclosed by Dodge to be a seat back support member. However, Dodge fails to teach or suggest that *downward movement of the shaft can cause a seat tray to slide forward with respect to a base*. To this end, the references, when combined, do not teach or suggest all the claim limitations.

In response to Applicants' argument, the Examiner argues that Applicants' argument primarily rests on the deficiencies of the individual references, and that one cannot show non-obviousness by attacking the references individually where the rejections are based on combinations of references. The Examiner indicates that Markwald teaches the interplaying relationship of the seat back and seat tray wherein the seat tray slides forward due to corresponding movement of the seat back. However, this is not true. Markwald actually teaches a seat back that moves forward due to corresponding movement of the seat tray sliding. Even if Hanson separately taught the desirability of the seat back moving downward, Hanson doesn't correct the deficiencies in Markwald. Dodge does no more than Hanson in that Dodge only teaches a seat back that is subject to downward movement. Dodge does not teach or suggest that *downward movement of the shaft can cause a seat tray to slide forward with respect to a base*. Hence, Applicants are not attacking the references individually. Instead, Applicants are simply pointing out that the references, individually or in combination, fail to teach or suggest the invention as set forth in the claims.

In the absence of some teaching or suggestion of a seat back that moves downward to cause the seat back to pivot at a seat tray and thereby recline, which in turn *causes the seat tray to slide forward with respect to a base*, the Examiner has not established a prima facie case of obviousness. Consequently, the rejection of the claims is improper and should be withdrawn.

Conclusion

In view of the above remarks, it is believed that the application is in condition for allowance. Accordingly, favorable reconsideration and a prompt Notice of Allowance are respectfully requested.

Request for Telephone Interview

As a final matter, if the Examiner does not find the application in condition for allowance, prior to issuance of another Office Action, Applicants' undersigned attorney requests the courtesy of a telephone interview at the Examiner's earliest convenience to discuss the application. Applicants' undersigned attorney may be contacted at (419) 255-5900.

Respectfully submitted,

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